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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,139	11/13/2001	N. Lemart Eriksson	LAGROTH-026	7721

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EXAMINER

YAO, SAMCHUAN COA

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 04/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/890,139	Applicant(s) ERIKSSON ET AL.	
	Examiner Sam Chuan C. Yao	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-10 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/04932 A1 in view of either (Gerhardt et al (US 5,643,376) or Fischer et al (US 5,063,010)), WO 98/50208 A1, Held (US 5,125,812), and optionally further in view of Pozzo et al (US 4,009,073).

WO '932 discloses a process for continuously making a ligno-cellulosic particle board, the process comprises providing a mat having binder coated lignocellulose particles, wherein the particles are dried to a predetermined moisture content; feeding the mat into pre-conditioning zone, where the mat is treated to a predetermined moisture content; feeding the pre-conditioned mat into a steam injection press; pressing and applying steam to the mat to cure the binder and form the particle board; and, delivering the particle board to a post-conditioning zone where *"the board is given the moisture content that is desired ..."* (emphasis added) and wherein emitted gases from the board such as formaldehyde are collected in the post- conditioning zone. (abstract; page 1 full paragraphs 1-2; page 4 lines 19-29; page 5 line 22 to page 6 line 4; figure 6)

WO '932 is silent on how a board effectively achieve a desired moisture content during a post-conditioning operation. In particular, WO '932 does not teach *"conditioning said board by drawing a predetermined volume of air having a predetermined moisture content at a predetermined temperature through said board by means of suction applied through said board"*. However, it would have been obvious in the art to post-condition a board by subjecting the board to a heated air having a predetermined moisture content, because: a) it is well known in the art to continuously manufacture a fiber board, where mat is treated with a heated air having a predetermined moisture content in a conditioning zone so as to form a conditioned mat having a desired moisture content as exemplified in the teachings of either Gerhardt et al (abstract; col. 2 lines 1-30, lines 56-68; figures 1-3) or Fischer et al (col. 2 lines 3-36; col. 3 lines 23-34; figures 1-2); and optionally, b) it is also old in the art to moisturize a fibrous board to an in-line post-treatment operation by subjecting the board to a hot humidified air as exemplified in the teachings of Pozzo et al (col. 9 lines 33-41). Moreover, it would have been obvious in the art to perform an in-line post-conditioning treatment to a fiberboard using a post-gas treatment similar to the method/apparatus taught by WO '208, where a *"gaseous treatment agent is contacted with at least one wall of the board and is caused to pass through the thickness of the board"* using a vacuum pressure, because: a) as noted above, a post-conditioning operation is used to recover emitted gases such as formaldehyde; and, b) WO '208 discloses subjecting at least one wall of a continuously moving board with a gas treatment

agent such as a steam and causing the gas to pass through the thickness of the board by forming a vacuum pressure on the opposing wall of the board so as to shorten a post-gas treatment time, and also to recover "*obnoxious emissions such as VOC gases released by the board material and for passing them to further processing.*"; wherein the gas treatment agent moisture content and temperature are controlled "*to achieve a desired effect on the material 1 being treated*" (abstract; page 1 lines 16-23, lines 32-37; page 2 lines 20-37; page 3 lines 1-37; col. 5 lines 24-37; claims 6-7 and 10). It is worth-noting that Fischer et al teaches interchangeably using a pair of opposing steam/air mixture injectors (18, 18') or a steam/air mixture injector and an opposing suction line 20 to condition a mat to a desired moisture content and temperature (figure 2).

WO '932 is also silent on whether a resultant board is subjected to a finishing operation such as grinding. However, it would have been obvious in the art to subject a post-treated/conditioned board to grinding operation, because it is a notoriously common practice in the art to grind a board "*to its final dimensions in a grinding station*" in a continuous fiberboard manufacturing process as exemplified in the teachings of Held (col. 5 lines 27-45; figure 1).

With respect to claim 7, since as noted above, WO '208 teaches subjecting at one wall of a resultant board to a gas treatment operation (abstract; page 2 lines 23-33); and since WO '208 further teaches providing a plurality of treatment zones arranged in series; where the treatment zones are arranged in a countercurrent fashion (page 5 lines 1-22); the limitation in this claim would have

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been obvious in the art. An incentive for one in the art to perform the recited limitation in this claim would have simply been to obtain a self-evident advantage of subjecting the opposing wall surfaces of a resultant board to similar conditioning operation, thereby forming a uniformly conditioned particle board.

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references set forth in numbered paragraph 2 as applied to claim 6 above, and further in view of either Kunнемeyer (US 4,883,546) or Hagstrom (US 4,356,763).

Since it is a common practice in the art to control a resultant fiber-board density profile such as forming a non-uniform density board (i.e. a skin layer density greater than a core layer density) or forming a uniform density board (i.e. skin layer density equals to a core layer density) as exemplified in the teachings of Kunнемeyer (col. 1 lines 21-25) or Hagstrom (col. 11 lines 35-39), the limitation in this claim would have been obvious in the art. It is worthnoting that, Kunнемeyer also teaches sanding a resultant fiberboard to remove an outer surface layer of the fiberboard (col. 2 lines 38-51).

Response to Arguments

4. Applicant's arguments with respect to claim 6 has been considered but are moot in view of the new ground(s) of rejection.

As for Counsel's arguments regarding Hagstrom and Kunнемeyer, while it is true that Hagstrom does not teach a continuous process for making a fiber board, Hagstrom clearly shows that it is old in the art to form a fiber board where a pressing sequence is controlled to obtain a desired density profile including

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forming a uniform density fiber board (col. 11 lines 34-39). It is respectfully submitted that, it is a notoriously common practice in the art to interchangeably apply a continuous or a batch manufacturing operation to form a fiberboard. Regardless whether Hagstrom does not suggest forming a fiberboard in a continuous process, it would have been obvious in the art to form a uniform density fiberboard in a continuous manner. As for Counsel's argument regarding the Kunнемeyer patent, it is respectfully submitted that, the claims as presently recited do not preclude forming wood dust skin layers. In fact, the phrase "lignocellulosic particles" reads on "homogenous fine wood dust". As for Counsel's argument a fiber board being "as uniform a density distribution as possible" is not equivalent to discrete layers "substantially the same" density, examiner strongly disagrees. A fiber board having a uniform density distribution strongly suggests that it has a substantially the same density. If not, how can a fiber board have a uniform density distribution and yet not have a substantially the same density?

Conclusion


In light of a new ground of rejection, the prosecution of this application is reopened, and this action is made non-final.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

Scy
04-11-05